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AS

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/336,612 06/18/99 BENDINER

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EXAMINER

IM22/0509

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CROSS J

ART UNIT

PAPER NUMBER

1743

DATE MAILED:

05/09/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/336,612

Applicant(s)

Bendiner

Examiner

LaToya Cross

Group Art Unit

1743

☒ Responsive to communication(s) filed on Feb 22, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-5 is/are pending in the application.

Of the above, claim(s) 3-5 is/are withdrawn from consideration.

☐ Claim(s) is/are allowed.

☒ Claim(s) 1 and 2 is/are rejected.

☐ Claim(s) is/are objected to.

☐ Claims are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number)

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received:

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

This Office Action is in response to Applicants' amendments filed on February 22, 2000 and entered as Paper No. 2. Claims 1-5 are pending in the instant application. Claims 3-5 are withdrawn from consideration as they are directed to non-elected subject matter.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1 and 2 remain to be rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 3,630,226 to Develter (herein referred to as Develter '226).

Applicants' claimed invention is directed to a solution comprising potassium sorbate dissolved in water at a specified concentration of at least 0.3% by weight and having a pH of at least 4.5.

Develter '226 discloses a solution comprising a biodegradable salt such as 2, 4 hexadienoic acid potassium salt (potassium sorbate) which is dissolved in water such that the solution has a salt concentration of about 0.3, preferably 0.3-0.35% by weight. The solution is disclosed as having a pH of about 4.2. See col. 4, lines 27-41.

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Develter '226 differs from the instantly claimed invention in that tap water or deionized water is not mentioned in particular. Also, the pH disclosed by the reference is slightly lower than that instantly claimed by Applicants.

With respect to the particular type of water, Develter '226 does not specifically disclose tap or deionized water. However, one of ordinary skill in the art would expect that any water suitable to dissolve the potassium sorbate would be appropriate. Absent evidence to the contrary, Applicants' claimed use of tap or deionized water specifically would not provide unexpected results.

With respect to the pH, Develter '226 discloses a pH of about 4.2, while Applicants' claim a pH of greater than 4.5. The pH of the reference is similar to the pH instantly claimed. Although there exists a difference, the differences in pH of the reference and that instantly claimed is very small. It is believed that the pH of the instantly claimed invention would not provide unexpected results, absent evidence to the contrary.

Therefore, for the reasons set forth above, Applicants' claimed invention remains to be deemed to be obvious, within the meaning of 35 USC 103, in view of the teachings of Develter '226.

3. Claims 1 and 2 remains to be rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,354,902 to Merciadet et al (hereinafter referred to as Merciadet et al '902).

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Applicants' claimed invention is directed to a solution comprising potassium sorbate dissolved in water at a specified concentration of at least 0.3% by weight and having a pH of at least 4.5.

Merciadez et al '902 discloses stabilized sorbic acid and salts thereof. Merciadez et al '902 discloses aqueous solutions of sorbic acids and salts such as potassium sorbate. The amounts of potassium sorbate in solution are disclosed as being from 0.005 to about 5% by weight (col. 1, lines 4-13). Also included in the compositions of Merciadez et al '902 is a buffering system to maintain pH of 4 to 5.5 (col. 1, lines 34-44). Each example teaches the potassium sorbate being dissolved in deionized water.

Merciadez et al '902 differ from the instantly claimed invention in that there is no specific example showing the use of potassium sorbate being dissolved in water at a concentration such as instantly claimed by Applicant. However, at col. 1, lines 4-13, Merciadez et al '902 clearly teach a range of 0.005-5% by weight for potassium sorbate. Thus, it would have been obvious to one of ordinary skill in the art to use Applicants' instantly claimed concentration of 0.3% by weight, since this amount is encompassed by the reference.

Therefore, for the reasons set forth above, Applicants' claimed invention remains to be deemed to be obvious, within the meaning of 35 USC 103, in view of the teachings of Merciadez et al '902.

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Response to Arguments

4. Applicant's arguments filed on February 22, 2000 have been fully considered but they are not persuasive.

Applicants' arguments concerning the rejection under 35 USC 103 of claims 1 and 2 in view of Develter '226 are directed to the fact that Applicants' solution prevents the formation of rust, corrosion, and scale whereas Develter '226 is directed to a food preservative. The use of Applicants' claimed solution to prevent rust, corrosion, and scale is merely an intended use. Intended use is given no patentable weight in claims directed to a composition per se. See MPEP 2111.02.

Applicants also argue that the solution of Develter '226 contains two ingredients and not just potassium sorbate. First, Applicants' claims recite the term "comprising" which is open languages and permits the presence of additional components other than those recited. Also, the second ingredient in Develter '226 is used to adjust the pH. It appears that Applicants' examples incorporate a second ingredient also (sodium nitrate) to adjust the pH to the desired level.

Applicants are additionally concerned with respect to the Develter '226 reference about the pH of the solution of Develter. Develter '226 discloses a pH of the solution of up to 4.2, whereas Applicants claim a pH of 4.5 or higher. As stated in the previous rejection, it is believed that a pH 4.5 would not provide an unexpected result over the use of a solution having a pH of 4.5, such as disclosed by Develter. Where a solution pH of 4.5 does provide unexpected results over a solution of pH 4.2, Applicant should submit comparative results or showings (in the form

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of an affidavit or declaration) that demonstrate that a potassium sorbate solution of pH 4.2 would not prevent corrosion, scale or rust.

With respect to Applicants' arguments concerning the concentration range of potassium sorbate in the solution, MPEP 2144.05 states that where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. Also stated is that where the general conditions of a claim are met by the prior art, optimization of concentration ranges by routine experimentation usually do not support patentability, unless there is evidence of criticality of concentration.

Applicants' arguments concerning the rejection of claims 1 and 2 under 35 USC 103 in view of Merciadet et al '902 are directed to the fact that while the reference discloses a potassium sorbate range of 0.005 - 5% by weight, the highest concentration used in the examples is 0.25%. While Merciadet '902 has working examples of potassium sorbate concentration up to 0.25%, the reference is not limited to the examples. The claims of Merciadet '902 recite that the potassium sorbate is used in an antimicrobial proportion which is defined by the reference as 0.005-5%, which includes Applicants' use of 0.3-1.75%.

Applicants also argue that Merciadet '902 does not mention the prevention of rust, corrosion, and scale. This is Applicants' intended use. Applicants' claims are directed to a solution which is defined by its components and not its intended use.

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Citation of Relevant Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following is a reference believe to be of pertinence to Applicants' claims.

U.S. Patent 5,965,549 to Purwar et al discloses pharmaceutical compositions in the form of solutions. The solutions comprise *inter alia*, potassium sorbate in an amount of 0.01-1% by weight, preferably 0.05-0.5% by weight (col. 4, lines 40-43). The solutions also comprise a buffer to adjust the pH to a range of 4.5-5 (col. 2, lines 64-66 and col. 3, line 1).

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaToya I. Cross whose telephone number is (703) 305-7360. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden, can be reached at (703) 308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

LIC

May 5, 2000


Jill Warden
Supervisory Patent Examiner
Technology Center 1700